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FEDERAL COMMUNICATIONS COMMISSION
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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

In the Matter of)
Performance Measurements and)
Reporting Requirements)
for Operations Support Systems,)
Interconnection, and Operator Services)
and Directory Assistance)

CC Docket No. 98-56
RM-9101

COMMENTS OF KMC TELECOM INC. AND RCN TELECOM SERVICES, INC.

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Dated: June 1, 1998

KMC Telecom Inc.
RCN Telecom Services, Inc.
June 1, 1998



SUMMARY

KMC Telecom Inc. ("KMC") and RCN Telecom Services, Inc. ("RCN") provide comments below by responding directly and specifically to various portions of the Commission's Notice of Proposed Rulemaking in this proceeding. The responses generally argue that the Commission should:

- (1) disaggregate performance measurements to such a degree of detail that it would be difficult for incumbent local exchange carriers to hide discrimination against particular services or network elements;
- (2) resist the complaints of incumbents regarding the alleged burdensome nature of certain performance measures for which data may be gathered and processed electronically;
- (3) design performance measurements that make it difficult for incumbents to game the system or manipulate the data;
- (4) use performance measurements to create incentives for incumbents to act in a pro-competitive manner;
- (5) provide appropriately stringent auditing provisions; and
- (6) allow potentially competing carriers to access performance data for markets that they may choose to enter.

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KMC Telecom Inc. ("KMC") and RCN Telecom Services, Inc. ("RCN"), through undersigned counsel, hereby submit their comments on the Commission's *Notice of Proposed Rulemaking* (released April 17, 1998) ("NPRM") in the above-captioned proceeding.

INTRODUCTION

KMC and RCN commend the Commission for its pro-active approach to resolving operations support systems ("OSS") issues. The lack of nondiscriminatory access to the OSS functions of incumbent local exchange carriers ("LECs") represents the foremost barrier to competition among local service providers today. Differences between carriers as they perform pre-ordering, ordering, provisioning, billing, maintenance and repair functions impact customers directly and consequently tend to determine which carriers will be successful. Currently, in the vast majority of states, there are no standards to govern – much less even measurements to assess – an incumbent LEC's performance in making its OSS functions accessible to competing carriers. Only a few states have the resources and expertise to develop and administer OSS

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standards and measurements. The optional OSS performance measurements resulting from the Commission's NPRM will help most state commissions rapidly deploy a regime to detect discrimination on the part of incumbent LECs.

To facilitate presenting their comments below, KMC and RCN have restated the passages of the NPRM to which they are responding.

RESPONSES

32. "In proposing these measurements, we seek to gauge an incumbent LEC's ability to provision the five OSS functions to competing carriers in terms of timeliness, quality, and accuracy."

The Commission's focus on the timeliness, quality and accuracy of OSS provisioning is entirely appropriate. Incumbent LECs can gain an unfair competitive advantage over CLECs merely by degrading any one or a combination of these three aspects of provisioning OSS. Customers will go back to the incumbent if their service orders are provisioned inaccurately, late or in a less convenient manner than the incumbent's customers would experience (*e.g.*, the CLEC's customers are not notified of jeopardies in advance). For real competition to exist among local exchange carriers, CLECs must be able to access the incumbent's OSS functions in such a manner that customers cannot detect any difference from the service that they receive from the incumbent.

36. "Our goal in developing performance measurements, and the associated level of detail, is to isolate the activities in which an incumbent could discriminate when providing services and facilities to competing carriers."

In pursuing its goal of identifying discrimination on the part of incumbents, the Commission should be mindful of the numerous opportunities that incumbents have to discriminate. For the most part, it will be extremely difficult for the Commission's performance measurements to isolate subtle discrimination. Even with such detailed measurements as it proposes in the NPRM, the Commission will be unable to detect all of the discrimination that will necessarily take place. Therefore, in regard to how detailed the proposed performance measurements should be, the Commission should error on the side of protecting competition.

KMC and RCN appreciate the Commission's concern that performance measurements not be too burdensome for incumbent LECs to calculate. However, in view of the fact that incumbents may assemble and process the data underlying the vast majority of the performance

measurements via automated or computerized mechanisms, the Commission should not sacrifice detail simply because incumbents speculate that certain measurements will be burdensome to perform.

38. "We seek comment on the appropriate geographic level of reporting. . . . We also seek comment on whether a uniform geographic level of reporting should apply to all performance measurements, or whether it would be appropriate to require different levels of reporting for separate measurements."

In general, incumbent LECs should report on the basis of Metropolitan Statistical Areas ("MSAs"). MSAs are roughly equivalent to the markets in which local telecommunications carriers will operate. However, for provision of unbundled network elements (including combinations thereof), collocation and 911 emergency services, incumbents should report on a central office basis. More granular reporting requirements for these latter elements and services are necessary because they are crucial to development and eventual success of competition.

39. "Accordingly, we tentatively conclude that an incumbent LEC should report separately on its performance as provided to: (1) its own retail customers; (2) any of its affiliates that provide local exchange service; (3) competing carriers in the aggregate; and (4) individual competing carriers."

KMC and RCN completely agree with the Commission's tentative conclusions as to the scope of performance reports.

40. "Because incumbent LECs access their systems electronically for retail purposes, we tentatively conclude that incumbent LECs need measure only the access they provide electronically to competing carriers."

While the Commission should restrict its consideration to electronic access to OSS — which is the forward-looking construct — it at least should require incumbent LECs submitting performance reports to indicate what percentage of orders are processed manually. Otherwise, an incumbent's performance reports may present an overly favorable picture of its ability to provide competing carriers access to its OSS functions.

41. "We recognize that most incumbent LECs provide several types of electronic interfaces, such as a GUI-based interface and an EDI-based interface. We seek comment on whether these incumbent LECs must provide performance measurements for each type of electronic interface. We seek comment on whether an incumbent LEC should measure performance for each of its electronic interfaces or only some subset of the interfaces it

offers. We tentatively conclude that they should disaggregate the data by interface type when reporting each performance measurement."

KMC and RCN agree that there need to be separate reports for each interface. If the reports aggregate information for all of the interfaces, incumbents LECs could mask discrimination against competitors that use only one type of interface. Moreover, having separate reports allows CLECs to evaluate which of the interfaces is the most effective and efficient. Competition will benefit as CLECs migrate to the best working interfaces.

43. "We seek comment on whether a sampling approach, such as the one adopted in the Bell Atlantic/NYNEX Merger Order, would be a sufficient method for assessing an incumbent LEC's nondiscriminatory provision of pre-ordering information."

Although sampling approaches could reduce some of the burdens associated with performance reporting, they are unnecessary when data can be assembled and manipulated by computer. For any such data, the Commission should not permit the use of sampling techniques.

44. "We seek comment on whether incumbent LECs should exclude those pre-ordering sub-functions that are not provided on a real time basis from this measurement, or whether there are alternative methods to detect possible discriminatory access in such instances."

Even for functions that are not provided on a real-time basis, the Commission's performance reports could still measure whether CLECs have access to batch-filed data in as timely a manner as the incumbent LEC.

45. "We therefore seek comment on whether an incumbent LEC should measure the speed by which it provides rejected query notices to competing carriers as well as to itself. Finally, we seek comment on whether incumbent LECs should measure the number of rejected query notices as a percentage of the total number of pre-ordering queries."

As the Commission suggests, incumbent LECs should measure the speed with which they provide rejected query notices to competing carriers. The ability of an incumbent LEC's OSS functions to process valid pre-order queries in a timely manner may hide discrimination that occurs when competing carriers do not receive rejection notices as quickly as the incumbent's personnel do. The latter are able to correct their errors and respond to customer inquiries rapidly. The former must wait for the rejection notice to realize that the query must be re-formulated.

In regard to the Commission's second inquiry, KMC and RCN support a slightly more

stringent requirement. Incumbents should calculate the percentage of pre-ordering queries that result in rejection notices for both themselves and competing carriers. Such a requirement will help to identify situations in which discrimination takes the form of comparatively large numbers of rejection notices.

46. "In order for competing carriers to track more easily the treatment accorded to certain types of orders throughout the ordering and provisioning process, we propose to use these thirteen measurement categories for the order completion measurements, the order status measurements, the held orders measurement, and the installation troubles measurement."

The Commission is justified in applying such a granular approach. Incumbent LECs could discriminate against any one of the thirteen order types that the Commission has identified. Failing to report on each of them separately would undermine the usefulness of the reports.

47. "Specifically, we seek comment on whether different or fewer levels of disaggregation would sufficiently detect instances of discrimination, but would impose less reporting burdens on incumbent LECs."

Requiring fewer levels of disaggregation would mask discrimination and would lighten incumbent LECs' burden only slightly, given that most of this data can be tracked electronically.

50. "For unbundled network elements, we propose that incumbent LECs report separately the measurement results associated with ordering and provisioning different types of network elements (i.e., unbundled loops, unbundled switching, and unbundled local transport). We also seek comment on whether the unbundled loop category should be further disaggregated, as suggested by LCUG, between 2-wire unbundled loops, which are generally used for POTS- type services, and all other loop types, such as 4-wire unbundled loops and unbundled DS1 loops, which may be more complex to provision."

At very least, the Commission must disaggregate the reporting for each different network element. An aggregated approach would mask discrimination and render the reports nearly useless.

As LCUG proposes, the Commission should disaggregate the loop category further. The ordering and provisioning of two-wire POTS loops should be assessed separately from the category of loops for more complex services. Incumbent LECs have heightened incentives to discriminate against the latter type of loops, which are used more often in the provision of high-bandwidth, and therefore high revenue generating, services. Providing a separate category for

complex loop types will assist competing carriers in detecting discrimination.

51. "Finally, we propose to include interconnection trunks as a separate measurement category."

Not only should the Commission treat interconnection trunking as a separate measurement category, it should divide the category into at least two subgroups to account for interconnection trunking for both basic and advanced services. If these two types of trunking are commingled in the measurements, incumbent LECs may be able to conceal discrimination against providers of advanced, higher-margin services. For example, RCN has sought B8ZS trunking, which is ISDN-compatible, in New York for many months. Bell-Atlantic-New York has yet to meet RCN's requirements and has forced it in the interim to accept a lower quality of trunking. The Commission's performance measurements should account for discrimination against providers of advanced services by separately measuring the provisioning intervals for advanced interconnection trunking.

53. "The measurement for the Average Completion Interval seeks to compare the average length of time it takes an incumbent LEC to complete orders for competing carriers with the average length of time it takes to complete comparable incumbent LEC retail orders. For competing carriers' orders, we tentatively conclude that an incumbent LEC must measure the interval from its receipt of a valid order ("Order Submission Date and Time") at its OSS interface until the time it returns a completion notification to the competing carrier ("Date and Time of Notice of Completion")."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Average Completion Interval.

54. "The Percentage of Due Dates Missed measurement seeks to determine whether the agreed-upon due dates for order completion are equally reliable for orders placed by competing carriers and orders placed by an incumbent LEC's end user customers. We tentatively conclude that an incumbent LEC must calculate this percentage by comparing the total number of orders not completed by the committed due date and time during the specified reporting period to the total number of orders scheduled to be completed during that reporting period."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Percentage of Due Dates Missed. In particular, RCN notes that it has experienced problems with Bell Atlantic missing due dates in New York and that a measurement of such

occurrences would be helpful.^{1/}

55. "We tentatively conclude that incumbent LECs should exclude orders canceled or supplemented by competing carriers from these measurements."

The Commission should not exclude from these measurements orders that were canceled or supplemented after the incumbent LEC missed the promised due date. At that point, a cancellation or supplement to an order does not affect in any way an incumbent's ability to provision it by the original due date.

In addition, the Commission should include a measurement of the number of orders that are canceled after the incumbent has missed the due date. Such a measure would effectively capture the frustration of CLEC customers with an incumbent's slow provisioning processes.

57. "We tentatively conclude that the incumbent LECs should measure the Average Coordinated Customer Conversion Interval, as set forth in Appendix A."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Average Coordinated Customer Conversion Interval.

59. "We tentatively conclude that incumbent LECs must provide the following order status measurements set forth in Appendix A: (1) the Average Reject Notice Interval; (2) the Average Firm Order Confirmation (FOC) Notice Interval; (3) the Average Jeopardy Notice Interval; (4) the Percentage of Orders Given Jeopardy Notices; and (5) the Average Completion Notice Interval. We tentatively conclude that all incumbent LECs must also measure these intervals for themselves, whether or not they have done so previously, in order to provide a basis for comparison with the average intervals for competing carriers. If an incumbent LEC does not currently provide itself with a certain form of notice (e.g., a FOC), we seek comment on the appropriate retail analog that should be measured."

KMC and RCN agree with all of these tentative conclusions, but offer the following observations:

- (1) If an incumbent LEC does not provide itself with a certain type of notice, the Commission should assume that notice was given as soon as the incumbent's

^{1/} Currently, the New York Public Service Commission's Service Quality criteria (Case 97-C-0139) measure only "missed appointments" and not missed due dates.

systems processed the order, recognized a jeopardy, or completed an order (as appropriate).

- (2) For measurements that represent an average of certain data, incumbent LECs should provide the standard deviation, which will help CLECs detect subtle discrimination. For instance, an average time to provide an FOC of four days is discriminatory if some CLECs receive an FOC within one day and others with seven days.

60. "The Average Reject Notice Interval seeks to measure the amount of time it takes an incumbent LEC to notify the competing carrier that an order has been rejected. We propose that an incumbent LEC measure this interval from the time it receives an order at its OSS interface to the time the rejection notice leaves its gateway."

KMC and RCN support the Commission's proposal regarding the method to calculate the Average Reject Notice Interval.

61. "The Average FOC Notice Interval seeks to measure the amount of time it takes an incumbent LEC to send a competing carrier a notice confirming the order. Because this interval measures only valid orders, we tentatively conclude that incumbent LECs must exclude rejected orders from this measurement."

Although incumbent LECs should be able to exclude invalid orders from the calculation of the Average FOC Notice Interval, that should not be the end of the matter. Incumbents ought to record a reason why they deemed an order to be invalid, because otherwise there is an incentive for them to reject valid orders simply to buy time to process heavy order volumes. To facilitate the task of explaining rejections, incumbents could prepare an error code chart that would assign numbers to various order deficiencies. These error codes could accompany order rejection notices. If CLECs believe that a certain incumbent has issued rejections in bad faith, they can file a complaint with the Commission or a state commission, alleging that the error codes assigned to various orders are improper. Establishing these procedures likely would minimize occasions when incumbents issue rejection notices for valid orders.

62. "The Average Jeopardy Notice Interval attempts to determine how far in advance a competing carrier receives notice that its customer's order is in jeopardy of not being completed as scheduled, compared to how far in advance an incumbent LEC's service representative receives such notice. . . . We tentatively conclude that incumbent LECs must measure the amount of time between the originally scheduled order completion date and time (as

stated on the FOC) and the date and time a notice leaves the incumbent LEC's interface informing the carrier that the order is in jeopardy of missing the originally scheduled date, as set forth in Appendix A. We seek comment on this tentative conclusion."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Average Jeopardy Notice Interval.

63. "We also tentatively conclude that incumbent LECs must measure the Percentage of Orders Given Jeopardy Notices using the measurement set forth in Appendix A."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Percentage of Orders Given Jeopardy Notices.

64. "Finally, the Average Completion Notice Interval measures the amount of time it takes an incumbent LEC to send a competing carrier notice that work on an order has been completed. . . . We tentatively conclude that an incumbent LEC must use the measurement set forth in Appendix A and must measure the interval by subtracting the date and time that it completed the work from the date and time a valid completion notice leaves its OSS interface. We seek comment on these tentative conclusions."

Completion notices from incumbent LECs can be extremely helpful to CLECs, but only when the notices are accurate. Both KMC and RCN have received false completion notices from incumbents, which results in tremendous confusion as neither the customer nor their new carrier know if service has been converted away from the incumbent. To address this problem, incumbents should: (1) exclude false completion notices from calculations of the Average Completion Notice Interval; and (2) record the number of false completion notices that are issued to CLECs. Regulators can better evaluate an incumbent's OSSs if they know not only the average completion notice interval, but also how often the system incorrectly issues a completion notice.

65. "We tentatively conclude that incumbent LECs must measure the Average Interval for Held Orders, as described in Appendix A. This measurement seeks to capture the time required to complete held orders, i.e., those orders pending at the end of the reporting period whose committed due dates have passed."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Average Interval for Held Orders.

66. "The held order interval for a particular order is the number of calendar days between the completion date listed on that order's FOC and the close of the reporting period. We propose that incumbent LECs exclude from this measurement those orders canceled by a competing carrier, as listed in Appendix A."

While it may be appropriate to exclude canceled held orders from calculation of the Average Interval for Held Orders, the Commission should not ignore canceled held orders. Incumbent LECs should record the number of cancellations occurring after the orders become held. This measurement would reflect the frustration of CLEC customers who could not obtain service in a timely manner. It also would assist CLECs and regulators in interpreting the Average Interval for Held Orders. The fact that a certain incumbent has a relatively short Average Interval for Held Orders could be tempered and explained by a high rate of canceled held orders.

67. "We note that certain incumbent LECs have indicated that they currently provide, or are willing to provide, a measurement for percentage of held orders due to lack of facilities. We have proposed a broader measurement that would not be limited to orders that are not completed due to lack of facilities, but rather would cover all uncompleted orders with passed due dates. Because incumbent LECs and requesting carriers are still learning how to manage and work with the operations support systems, we tentatively conclude that a broader measurement, such as the one proposed above, will be more useful because it will capture all instances when an order is not completed rather than just those instances when an order is not completed due to lack of facilities. We seek comment on our tentative conclusion."

KMC and RCN agree with the Commission's tentative conclusion to adopt a broader measurement because delays do not result only from lack of facilities. In RCN's experience, delays can occur in two other instances. First, many incumbent LECs do not deploy sufficient manpower to perform provisioning tasks without incurring held orders. Second, incumbents tend not to have equipment (as opposed to facilities) available for provisioning tasks. For instance, incumbents often prefer to order the channel units needed to expand multiplexing capacity only when they are about to make the upgrade. However, delays occur at that point because the manufacturer cannot produce the equipment instantly. The Commission's broader measurement of held orders would capture held orders resulting from both of these situations.

69. "Although we make no tentative conclusions regarding the specific measurement needed to measure the Percentage of Troubles in Thirty Days

for New Orders, we seek comment on the measurement set forth in Appendix A. Specifically, we seek comment on whether this measurement should be disaggregated in the same way as the other ordering and provisioning measurements."

The measurement for Percentage of Troubles in Thirty Days for New Orders should be disaggregated in the same way as the other ordering and provisioning measurements to prevent incumbent LECs from masking discrimination against more desirable (and hence more profitable) network elements or services.

70. "Finally, we seek comment on whether it is appropriate to measure percentage troubles on a "per order" basis. We seek comment on whether tracking troubles on a per order basis might mask a higher number of troubles for larger orders. For example, an order of forty new lines may have several problems and yet would be reported as having only one trouble report. We therefore seek comment on whether a "per circuit" basis for resale orders and "per element" basis for unbundled network element orders might be more useful than a "per order" basis."

Performance measurements must be done on a "per element" and "per circuit" basis. The Commission is correct when it surmises that relying only on a "per order" basis would fail to reflect all of the problems that may occur within a single order. Those carriers that place large orders may feel the brunt of discrimination most, because the performance measures would be least accurate for them.

71. "Order Flow Through applies solely to the OSS ordering function, not the OSS provisioning function."

The Commission's Percentage of Order Flow Through measurement should apply to provisioning functions whenever orders flow from an incumbent LEC's OSS directly into its provisioning system. For instance, simple resale orders typically are provisioned electronically. In that case, the Percentage of Order Flow Through measurement should apply.

72. "We tentatively conclude that incumbent LECs should measure the percentage of competing carriers' orders that flow through electronically to the incumbent LECs' ordering systems, as set forth in Appendix A. The Percentage of Order Flow Through measurement seeks to calculate the percentage of orders that an incumbent LEC processes electronically through its gateway and accepts into its back office systems without manual intervention (i.e., without additional human intervention once the order is submitted into the system). This measurement only applies to valid orders,

that is, orders that have not been rejected for some reason. A separate measurement for rejected orders is discussed below."

KMC and RCN support the Commission's tentative conclusion regarding the method to calculate the Percentage of Order Flow Through. In addition, KMC and RCN urge the Commission to require incumbent LECs to disclose what ordering functions are not being done electronically. Such information will help CLECs and regulators assess the range of order volumes from competing carriers that an incumbent's OSS functions could handle.

74. "We tentatively conclude that the Order Flow Through measurement must be disaggregated by the following categories, as set forth in Appendix A: (1) resale POTS; (2) resale specials; (3) network elements; and (4) combinations of network elements. The method of ordering resold services and network elements is not likely to vary between residential and business customers."

The Commission should disaggregate the Order Flow Through measurement by the thirteen levels of disaggregation applicable to ordering measurements in general. *See* NPRM, Appendix A, at A2. The lesser degree of disaggregation that the Commission proposes would hide discrimination against certain types of services or network elements.

75. "We tentatively conclude that incumbent LECs must report on the Percentage of Rejected Orders. We also tentatively conclude that this measurement must be reported to the same level of disaggregation as the Order Flow Through measurement. A high order flow through percentage may be less meaningful if the carrier also has a high percentage of rejected orders."

KMC and RCN support the Commission's tentative conclusion that incumbent LECs should measure the Percentage of Rejected Orders. However, as with the Order Flow Through measurement, the Commission should prevent incumbent LECs from masking discrimination by disaggregating the Percentage of Rejected Orders measurement into the thirteen categories for ordering measurements in general. *See* NPRM, Appendix A, at A2.

76. "In addition to the above measurement, we seek comment on whether incumbent LECs should report on the average number of times an order must be resubmitted before it is finally accepted as a valid order. The Average Submissions per Order measurement, as set forth in Appendix A, would require incumbent LECs to measure the number of orders accepted for provisioning and the number of orders rejected during the reporting period in order to calculate the total number of order submissions in the

reporting period. The total number of order submissions would then be divided by the total number of orders accepted for provisioning in the reporting period. We believe that this measurement could reflect the quality of access to an incumbent LEC's ordering system."

KMC and RCN strongly support the Commission's adoption of an Average Submissions per Order measurement, which will reveal the magnitude of the difficulties that CLECs experience in attempting to process orders through the OSSs of incumbent LECs.

77. "We seek comment on whether incumbent LECs should measure the provision of 911 and E911 emergency services to competing carriers. We seek comment on whether federal reporting requirements are necessary to monitor possible discrimination, or whether the states' existing oversight functions of 911 and E911 database services adequately monitor carrier-to-carrier discrimination."

While states can be counted on to intercede in cases where incumbent LEC failures to provide nondiscriminatory access to 911 and E911 emergency services may result in catastrophes, states generally are less able to assess whether incumbents have deployed nondiscriminatory processes to grant CLECs access. Thus, at the very least, the Commission should craft reporting requirements that measure whether the equipment is in place to serve CLECs in a nondiscriminatory manner. For instance, the Commission should measure the percentage of an incumbent's 911 and E911 systems that are accessible electronically, because manual access is clearly discriminatory.

78. "In particular, we seek comment on the utility of measuring the Percentage of Accurate Updates for incumbent LEC and competing carrier customers, as proposed in Appendix A."

If a state does not already have a similar measurement in place, there would be great utility in measuring the comparative Percentages of Accurate Updates for incumbents and CLECs as they access 911 and E911 services. Discrepancies that reveal discrimination against CLECs also could avert safety crises before they occur.

79. "We also seek comment on the utility of measuring the timeliness of updates to the 911 and E911 databases, as proposed in Appendix A. We seek comment on whether incumbent LECs should measure the Percentage of Missed Due Dates by establishing due dates, or specific time frames, for updating databases. Alternatively, we seek comment on whether incumbent LECs should measure the Average Time to Update the 911 and E911 Databases."

Incumbent LECs should measure the Average Time to Update the 911 and E911 Databases, as that would be less administratively burdensome than setting up a special due date system. Similarly, measuring average update times would reveal discrimination much more effectively than measuring incumbents' compliance with due dates.

81. "We tentatively conclude that incumbent LECs must provide the following repair and maintenance measurements, as listed in Appendix A: (1) Average Time to Restore; (2) Frequency of Troubles in a Thirty Day Period; (3) Frequency of Repeat Troubles in a Thirty Day Period; and (4) Percentage of Customer Troubles Resolved within the Estimated Time. In addition, we seek comment on whether incumbent LECs should disaggregate the repair and maintenance measurements in the manner described above with respect to the ordering and provisioning measurements."

KMC and RCN support the Commission's tentative conclusion to adopt the four proposed repair and maintenance measurements. In regard to disaggregation, KMC and RCN support using the thirteen categories for ordering and provisioning measurements. See NPRM, Appendix A, at A2. As noted above, these categories will help identify discrimination that would be camouflaged by a less degree of disaggregation.

82. "The Average Time to Restore measurement allows a competing carrier to gauge whether its customers' services are repaired in the same time frame as that of the incumbent LEC's customers. As shown in Appendix A, the Average Time to Restore measures the time from when a service problem is reported to the incumbent LEC (i.e., when a "trouble ticket" is logged) to the time when the incumbent LEC returns a trouble ticket resolution notification to the competing carrier."

The Commission should clarify that time period measured in the Average Time to Restore does not cease if the incumbent LEC returns a false trouble ticket resolution notification to the competing carrier. Given the problems CLECs have experienced with incumbent issuing false completion notices, the Commission should be wary of similar mistakes occurring in the with resolution of trouble tickets.

84. "The Frequency of Repeat Troubles in a Thirty Day Period measurement calculates the percentage of trouble tickets that are repeat trouble tickets."

KMC and RCN believe that a measurement for Frequency of Repeat Troubles in a Thirty Day Period is essential. In RCN's experience, customers that repeatedly have trouble with the same line tend to become infuriated and are likely to return to the incumbent LEC. A

performance measure for this phenomenon will help regulators assess what competitive damage incumbents have caused.

85. "The Percentage of Customer Troubles Resolved Within the Estimated Time measures whether the estimated times for repairs the incumbent LEC reports to competing carriers are as reliable as the estimated times the incumbent LEC provides to its end user customers. Recognizing that troubles on interconnection trunks may not be customer specific, we seek comment on the utility of requiring incumbent LECs to report on the Percentage of Customer Troubles Resolved Within the Estimated Time with respect to interconnection trunks."

Incumbent LECs should prepare reports on the Percentage of Customer Troubles Resolved Within the Estimated Time with respect to interconnection trunks because, even though customers may not be directly affected, they certainly are indirectly affected. Furthermore, CLECs need accurate estimates of the time it will take the incumbent to complete repairs so that they can work around the problem in the meantime.

86. "We note that LCUG has proposed measurement categories for the Average Time to Restore measurement based on the disposition and cause of the trouble. We seek comment on whether most carriers use the disposition and cause categories proposed by LCUG."

Although a through break-down of the dispositions and causes of trouble would be burdensome, incumbent LECs at least could report whether they are the cause of the problem. Such information would help identify possible discrimination that may be taking place.

87. "With respect to the Frequency of Repeat Troubles measurement, we tentatively conclude that incumbent LECs should exclude subsequent trouble reports on maintenance tickets that have not been reported as resolved or closed."

The Commission's proposed exclusion of "subsequent trouble reports on maintenance tickets that have not been reported as resolved or closed" is reasonable as long as the subsequent trouble reports concern the same problem as reported in the original maintenance ticket. If the subsequent trouble report deals with a different problem, it should be counted separately.

88. "Two types of billing information a competing carrier must obtain from an incumbent LEC are: 1) customer usage records (i.e., those records detailing each end user's use of the incumbent's services); and 2) billing invoices, which establish the amount the competing carrier owes the

incumbent LEC for use of its services or facilities.”

There are two general points about measuring incumbent LEC performance in rendering billing information. First, there should be a measurement for the extent to which incumbents bill CLECs in an integrated fashion because those incumbents that send out piecemeal bills create substantial confusion. For instance, the Commission could measure the number of bills issued in a single reporting period for the same kinds of services or network elements. The incumbent issuing such bills obviously could have consolidated them. Second, the Commission should create a performance measurement of the accuracy of bills from incumbent LECs. For instance, RCN has found that incumbent LEC bills often contain charges that are unrelated to interconnection or the purchase of unbundled network elements and resold services. The Commission should require incumbents to measure the percentage of bills for which they receive complaints and end up taking action favorable to the complainants.

91. “We tentatively conclude that an incumbent LEC must measure the percentage of time its electronic interfaces for each OSS function are actually operational as compared to the scheduled availability, as noted in Appendix A. . . . we tentatively conclude that this measurement must be disaggregated by interface type, such as EDI and GUI, as well as by each separate OSS function provided by the incumbent LEC to competing carriers (e.g., pre-ordering, ordering, provisioning, repair and maintenance, and billing). We seek comment on our tentative conclusions regarding systems availability measurements.”

The Commission’s tentative conclusions, quoted above, are justified and should be adopted. Systems availability is an extremely important ingredient in a CLEC’s ability to compete and, especially since it is easily measured, should be part of any set of performance measurements for incumbent LECs. The Commission’s proposed disaggregation is appropriate because different interfaces and even different functions within the same interface can have different periods of availability.

92. “We tentatively conclude that an incumbent LEC must measure the average time to answer calls from competing carriers to an incumbent LEC’s wholesale service center, as noted in Appendix A. We propose that an incumbent LEC calculate this measurement by tracking the time elapsed from when the service center’s call management system is prompted by an incoming call from a competing carrier until the call is answered by an incumbent LEC’s service representative.”

KMC and RCN agree with these tentative conclusions of the Commission, quoted above, but note that such measurements of service center responsiveness ignore the interval that centers

take to answer and resolve CLEC questions. While having the centers answer the telephone promptly is important, it is only one piece of the puzzle.

93. "We tentatively conclude that an incumbent LEC must measure the average time it takes its own end user customers and those of competing carriers to access the incumbent LEC's operator services and directory assistance databases or operators."

KMC and RCN agree with the Commission's tentative conclusions, quoted above. The quality of operator services and directory assistance that CLECs receive materially affects their success in the market because customers interface directly with these systems, unlike most other OSS functions. Negative customer perceptions that would flow from slow access times (compared to the times for customers of the incumbent) would cripple a CLEC's business.

95. "We tentatively conclude that incumbent LECs must report separately for interconnection trunks when disaggregating the ordering and provisioning measurements, as well as the repair and maintenance measurements."

The Commission's proposed disaggregation for interconnection trunks is reasonable and should be adopted.

97. "We believe that competing carriers' traffic can be blocked at two critical points: (1) interconnection trunk groups (e.g., those trunk groups connecting the incumbent LEC's end offices, access tandems, or local tandems with a competing carrier's network); or (2) common trunk groups located within the incumbent LEC's network behind the point of interconnection (e.g., trunks connecting the incumbent's tandem switch with other points in the incumbent LEC's network). We therefore tentatively conclude that an incumbent LEC measure on blockage on both sets of trunk groups, as set forth in Appendix A. We seek comment on these tentative conclusions."

KMC and RCN have no objection to the Commission's tentative conclusions, but note that the definition of trunk groups on which blockage should be measured could be more easily expressed in functional terms. KMC and RCN would require incumbents to measure blockage on any trunk group that could interfere with the delivery of CLEC traffic to the incumbent's customers or interfere with the ability of CLEC customers to receive traffic from the incumbent. This kind of functional definition ensures that no trunk groups used for interconnection escape the reach of the Commission's performance measures.

98. "We recognize that inferior service is generally indicated by repeated blockage on the same final trunk groups. We therefore seek comment on whether incumbent LECs should measure whether there is repeated blockage over the same trunk groups for an ongoing period, such as three consecutive months."

Incumbent LECs definitely should measure whether there is repeated blockage on the same final trunk groups. However, three months is much too long a period for this measurement. If blockage occurs over such an extended period, CLECs will have routed around the source of the trouble in any event. If they do not do so, customers will flock back to the incumbent LEC — especially business users who have a low tolerance for not being able to receive calls from their customers. The Commission should use thirty days as the measurement period for blockage on final trunk groups because of the direct impact that blockage has on customer perceptions of CLECs.

99. "With respect to interconnection trunks, we seek comment on the utility of comparing blockage on interconnection trunks and blockage on the incumbent LEC's interoffice trunk groups carrying its retail customers' traffic."

The Commission should compare blockage on interconnection trunks to blockage affecting the retail customers of incumbent LECs. Comparative data, where available, between the incumbent's retail customers and CLECs is always extremely helpful and appropriate to locate discrimination. In addition, the Commission should consider requiring incumbents to provide data on the redundant trunk routes open to the incumbent and CLECs. The existence of more redundant trunk routes for the incumbent may indicate that its customers are much less likely than those of CLECs to experience blockage.

100. "We tentatively conclude that it is necessary to measure common trunk blockage and seek comment on appropriate methods to make such measurements. Additionally, we seek comment on the utility of requiring incumbent LECs to report on blockage on common trunks within their networks that connect to a point of interconnection, as well as on interoffice common trunks that are not connected to a point of interconnection."

The Commission's tentative conclusion to measure common trunk blockage is reasonable. Moreover, there is substantial utility in measuring blockage on common trunk groups that are and are not connected to a point of interconnection. As KMC and RCN stated in response to Paragraph 99, comparisons between services provided to an incumbent LEC's retail and wholesale customers are always appropriate.

101. "Finally, we seek comment on whether an incumbent LEC must measure call completion rates to demonstrate that it is satisfying the statutory requirements of section 251(c)(2). We seek comment on the utility of using this measurement to gauge the quality of interconnection provided by an incumbent LEC and on the benefits of using the call completion measurement in addition to, or instead of, the trunk blockage measurement."

Measuring call completion would accomplish directly what the Commission seeks to do somewhat indirectly through measuring trunk blockage. Therefore, incumbents should measure call completion rates. But such measurements should not supplant trunk measurements because blockage that occurs consistently over a subset of interconnections trunks may not be detectable simply by analyzing call completion rates. The Commission should treat measurement of call completion as simply an additional piece of evidence to consider in analyzing whether an incumbent provides nondiscriminatory access to its OSS functions.

102. "Consequently, we tentatively conclude that incumbent LECs must provide measurements concerning their provision of collocation facilities to competing carriers, including the response time for initial requests for collocation. We also tentatively conclude that this measurement must be disaggregated between virtual and physical collocation arrangements. We tentatively conclude that incumbent LECs must provide the following measurements: 1) Average Time to Respond to a Collocation Request; 2) Average Time to Provide a Collocation Arrangement; and 3) Percentage of Due Dates Missed with respect to the provision of collocation arrangements."

KMC and RCN agree with the Commission's tentative conclusions, quoted above, but offer one additional comment. There should be a measurement that accounts for situations in which incumbent LECs miss a due date for a single collocation arrangement multiple times. In RCN's experience, most of the difficulties with establishing collocation arrangements tend to occur with certain "problem" sites. Regulators could rapidly identify incumbents that have such sites with a measure of repeatedly missed due dates.

106. "We tentatively conclude, therefore, that only those carriers that already obtain services or facilities from the incumbent LEC through an interconnection agreement, or under a statement of generally available terms, should have the opportunity to receive reports."

The Commission also should permit potential competitors that are considering entering a certain local market to receive reports. Allowing them to do so would enable them to gauge which markets are most promising and which are possibly disastrous for their business plan. For purposes of this response, "potential competitors" would include those CLECs that have

executed interconnection agreements with the incumbent LEC from which they seek OSS reports.

107. "In order to minimize unnecessary costs or burdens for incumbent LECs, we further conclude that an incumbent LEC should provide reports to an individual competing carrier only after receiving a request from the competing carrier for such reports."

KMC and RCN do not disagree with the tentative conclusion, quoted above, but merely request that the Commission require incumbent LECs that do not provide all of the model reports eventually adopted in this proceeding to indicate which reports they do provide.

109. "Finally, we seek comment on whether reports should be filed with a central clearinghouse so that state commissions, other competing carriers, or the general public can review an incumbent LEC's performance in different states. We seek comment on the benefits and costs involved in developing such a clearinghouse. We also seek comment on what entity should act as a clearinghouse, e.g., a coalition of regulators (such as NARUC) or another organization."

The clearinghouse approach would be an excellent way to ensure that potential competitors are able to assess whether new markets are viable in light of incumbent LECs' performance in making OSS functions available to CLECs. Furthermore, members of the public, including large purchasers of telecommunications services, would be in a better position to evaluate the degree of competition and the range of alternative service providers likely to exist in different markets. While there would be nominal administrative costs associated with developing an OSS clearinghouse, there would be tremendous benefits for local competition in general.

The entity operating the OSS clearinghouse and its database should be as neutral as possible to both new entrants and incumbents. Although using NARUC would be acceptable, it might be a more feasible task for a national accounting firm, which naturally would have greater access to the computer equipment needed to maintain an OSS database.

110. "We recognize that parties may be concerned about disclosing confidential measurement results if results particular to an incumbent LEC or to an individual competing carrier are reported broadly. An incumbent LEC may not wish to divulge measurement results relating to the provision of services to itself or to its local exchange affiliates. A competing carrier may also have concerns about the disclosure of its individual measurement results, which will show the manner in which it receives services and facilities

from the incumbent LEC and also which services and facilities it receives. We seek comment on the need to keep individual competing carrier information confidential and on the proposal that only aggregate measurement results be made available to other competing carriers or to the general public."

KMC and RCN appreciate the Commission's concern that revealing OSS data specific to individual carriers' retail operations could harm them. KMC and RCN urge the Commission to make only aggregate OSS information available generally to the public and to potential competitors. Of course and as noted below, CLECs that actually compete with an incumbent must be able to access performance data specific to their own operations as well as "measurement results relating to the provision of services to [the incumbent] itself or to its local exchange affiliates." Otherwise, the purpose of having performance measurements (*i.e.*, that of identifying discrimination) would be unattainable.

111. "With respect to incumbent LEC measurement results, we believe that individual competing carriers must have access to incumbent LEC results so that they can make a meaningful comparison with their own data. If regulatory agencies request incumbent LEC and competing carrier measurement results, we ask parties to comment on whether protective measures are necessary and to propose appropriate mechanisms to keep those results confidential."

As stated above, individual competing carriers must have access to incumbent LEC results to determine if discrimination is taking place. When regulatory agencies request such data, appropriate confidentiality procedures must be in place to protect carriers. KMC and RCN expect that the exact formulation of these procedures will be non-controversial as long as they are fair to new entrants and incumbents alike.

112. "We, therefore, seek comment on the costs and benefits of requiring monthly reporting, as opposed to reporting on a less frequent basis, such as quarterly. We also seek comment on how quickly an incumbent LEC should provide a performance report after it is requested."

Since incumbent LECs can prepare much of the data underlying the reports electronically, KMC and RCN support monthly reporting requirements. In local exchange markets where competition is just developing and the scope of new entrants' operations are constantly in flux, each month of data is crucial (at least until the market settles down over some significant period of time as new entrants become established).

113. "We therefore seek comment on the need to conduct such audits as part

of a model performance monitoring scheme. We also seek comment on the types of audits that might impose undue burdens. Finally, we seek comment on mechanisms that will permit competing carriers to conduct audits, when necessary, while protecting incumbent LECs from unduly burdensome or unnecessary audits. In addressing this issue, we ask parties to comment on who should pay for the costs of the audit."

Audits of incumbent LECs' OSS reports are necessary to prevent abuse and ensure the integrity of the process. However, clearly audits can be limited in several ways so that they do not become overly burdensome or subject to abuse themselves. For example, audits could be:

- (7) limited in frequency (*e.g.*, 2 times per year);
- (8) limited in scope (*e.g.*, allow mini-audits available more often than full audits);
- (9) applied more aggressively to incumbents that have failed previous audits (*e.g.*, conducted randomly); and
- (10) paid for by the "loser" in the case of un-scheduled audits (*e.g.*, the incumbent pays if material discrepancies in the data are found; otherwise the requesting CLEC pays).

The costs of regularly scheduled audits should be divided equally among the audited incumbent and the CLECs competing in the incumbent's service area that request OSS performance information.

114. "In addition to audits, LCUG also proposed that an incumbent LEC should make available, at a competing carrier's request, the raw data underlying a report at the same time it provides the performance report to that competing carrier. We seek comment on whether model reporting procedures should include providing access to raw data at this initial stage, rather than in the context of an audit."

KMC and RCN believe that incumbent LECs should provide the raw data underlying particular OSS performance reports whenever the data is available in computerized form and its production would entail minimal additional effort on the incumbent's part. Incumbents should provide competing CLECs with raw data not covered under this definition during the course of audits.

CONCLUSION

KMC and RCN agree with most of the Commission's tentative conclusions and proposals, but have offered a few comments above to assist the Commission in accomplishing its pro-competitive goals. As the Commission develops rules under the NPRM, it should insist upon OSS performance measurements that are most likely to detect any discrimination that may be taking place. Moreover, the Commission should be wary of self-serving claims of incumbent LECs that gathering the data for certain performance measurements would be unduly burdensome. The Commission should approach its task bearing in mind that there are few, if any, incumbents who currently provide competing carriers with nondiscriminatory access to OSS functions.

Respectfully submitted,



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